



<http://www.mn-arts.org/>

## ***December 2018 Edition***

### **December Meeting Minutes**

Russ Ramirez, K0WFS, called the meeting to order at 1 PM. 12 members were present.

- Introductions made around the table.
- The October 2018 Minutes were approved.
- No treasurers report this meeting.

### **Old Business:**

The November Build-a-thon was reviewed. There was a good turnout for this one.

April will be the next Build-a-thon and a couple potential projects were reviewed.

The schedule has been set for the room rental for 2019.

### **New Business:**

No new business.

### **Show and Tell:**

**John Krawczak**, KJ0P, brought in a variable voltage wall wart with a multi plug he got from Axman. This was originally sold by Radio Shack. John

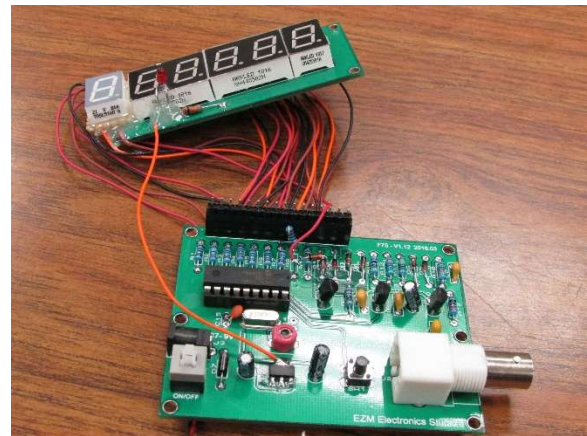
also recently obtained a Microbit experimental development board from MicroCenter. It is used to teach students coding. He found it to be very versatile.

John also brought in a board for a Raspberry Pi that turns it into a 20 meter transmitter with 100 mw output. (See [https://www.tapr.org/kits\\_20M-wspr-pi.html](https://www.tapr.org/kits_20M-wspr-pi.html)) It accommodates several digital modes.





**Bob Liesenfeld, WB0POQ**, showed us how he modified the frequency counter built at the last build-a-thon. Bob extended the display unit and added a digit and decimal LED.

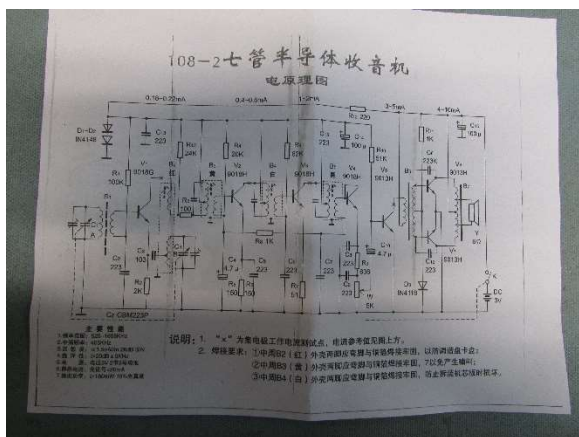


**Russ Ramirez, K0WFS**, brought in a supply of electrolytic capacitors for any club member that might need some. Thanks Russ!!



**Steve Ulrich, NW0C**, brought in an AM radio kit he got from Ali Express for \$4.99. It is a 7 transistor, all discrete design. He has plans to use it as a test bed for a few experiments. He also brought in two frequency counters he obtained. One has an LED display and the other an LCD.





## December Presentation

**Joe Heitzinger**, KC0OIO, told us about the new FT8 mode. This is not a rag chew mode but a highly efficient way to make short digital exchanges. Joe showed us how to set it up and emphasized the need for an accurate computer clock for timing.

The operating software can be downloaded from:

<https://physics.princeton.edu/pulsar/k1jt/wsjsx.html>

Additionally, he recommended looking at Tapert software which can be configured to automatically log your contacts.

For timing the following was suggested:

<https://www.meinbergglobal.com/english/sw/ntp.htm>

<http://www.thinkman.com/dimension4/>

bkt time sync

Thanks for a great presentation!!



Submitted by: Steve Ulrich/NW0C

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***Club Officers:***

*President: Russ Ramirez/K0WFS*  
*Vice Pres: Jeremy Mooney/KC0LDI*  
*Secretary: Steve Ulrich/NW0C*  
*Treasurer: Paul Bushouse/N0TYE*  
*At Large: Bob Liesenfeld/WB0POQ*

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